

# MISCELLANEOUS WATER BILLS

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HEARING  
BEFORE THE  
SUBCOMMITTEE ON WATER AND POWER  
OF THE  
COMMITTEE ON  
ENERGY AND NATURAL RESOURCES  
UNITED STATES SENATE  
ONE HUNDRED NINTH CONGRESS  
FIRST SESSION

on

<b>S. 49</b>	<b>S. 247</b>
<b>S. 648</b>	<b>S. 819</b>
<b>S. 891</b>	<b>S. 1338</b>

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JULY 12, 2005



Printed for the use of the  
Committee on Energy and Natural Resources

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U.S. GOVERNMENT PRINTING OFFICE

23-730 PDF

WASHINGTON : 2005

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## MISCELLANEOUS WATER BILLS

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TUESDAY, JULY 12, 2005

U.S. SENATE,  
SUBCOMMITTEE ON WATER AND POWER,  
COMMITTEE ON ENERGY AND NATURAL RESOURCES,  
*Washington, DC.*

The subcommittee met, pursuant to notice, at 3 p.m. in room SD-366, Dirksen Senate Office Building, Hon. Lisa Murkowski presiding.

### OPENING STATEMENT OF THE HON. LISA MURKOWSKI, U.S. SENATOR FROM ALASKA

Senator MURKOWSKI. Okay, we are on record. Good afternoon. I'd like to welcome everyone to the Water and Power Subcommittee. We have a somewhat full agenda this afternoon. We've got six bills before the subcommittee. We have S. 49, the Alaska Floodplain and Erosion Mitigation Commission Act of 2005—this was a bill that was sponsored by Senator Stevens, and I'm pleased to join him as a co-sponsor in that legislation; S. 247, the Tumalo Water Conservation Project Act of 2005, sponsored by Senators Smith and Wyden; S. 648, An Extension of the Reclamation States Emergency Drought Relief Act of 1991, also sponsored by Senator Smith; S. 819, the Pactola Reservoir Reallocation Authorization Act, sponsored by Senator Johnson; S. 891, a Water Service Contract Extension for the Ainsworth Unit—this is the Sandhills Division, Pick-Sloan Missouri Basin Program in Nebraska, and this is sponsored by Senator Hagel; as well as S. 1338, the Alaska Water Resources Act of 2005, which I have co-sponsored.

We'll have two panels appearing before the subcommittee this afternoon. The first panel is comprised of administration witnesses from the Bureau of Reclamation and the USGS. I'd like to thank you, Commissioner Keys, for joining us here this afternoon. And Dr. Leslie Holland-Bartels, the USGS Deputy Regional Director in Alaska—we shared the airplane coming back tonight, we were on the same time zone here—I thank you for making a long trip.

On panel 2, we are pleased to welcome Mr. Edgar Blatchford, the commissioner of community and economic development from Alaska. He will testify on S. 49 and S. 1338. Also, Mr. Elmer McDaniels, the manager of the Tumalo Irrigation Water District in Oregon, will be testifying on S. 247.

As either the sponsor or the co-sponsor of the two Alaska bills, I will just offer a few brief comments this afternoon. S. 49, which is the Joint Federal-State Floodplain and Erosion Mitigation Commission Act, is a response to recent increases in flooding and coast-

al and river erosion in rural Alaska. According to a 2003 study by the GAO, 184 out of 213 Alaskan native villages have experienced flooding or erosion problems. This is 84 percent of Alaska's villages. When you think about 84 percent of your villages, your communities in your State being subject to flooding or erosion, it's a pretty tough figure.

Erosion, whether it's intensified by climate change or just the fact that most rural communities are built along the coast of Alaska's river banks, has already forced an effort to relocate the southwest village of Newtok to more stable ground. There's eight other villages that have been mentioned as needing significant assistance. These are the communities of Shishmaref, Kivalina, Koyukuk—and these are for possible relocation aid—as well as the communities of Kaktovik, Point Hope, Veral, Unalakleet and Bethel, where other actions have been taken to reduce the erosion and flood threats.

There are a couple of charts that we have here that demonstrate the problem. One shows the storm surges that frequently impact Alaska's coastline. We've got another one that shows the village of Unalakleet and the erosion along the bluff there. As you can see, the damage is pretty striking.

The bill, sponsored by my fellow Alaska colleague, Senator Ted Stevens, will establish a seven-member, joint Federal-State commission to study floodplain and erosion issues and develop feasible alternatives for flooding or erosion assistance. The commission will also develop policy to guide infrastructure investments in Alaska native villages. This is especially important, because solutions to Alaska erosion issues often entail a decision to simply move the impacted village to more stable grounds. This, as we have learned, can cost hundreds of millions of dollars to do these relocations.

So, clearly, Congress needs better information and more unified policy recommendations, which this Commission will hopefully provide before we tackle the expensive and unusually complex decisions that may face us.

The other legislation, S. 1338, the Alaska Water Resources Act—since becoming chairman of this subcommittee, I've learned that Alaska increasingly faces the threat of future potable water shortages. And this may seem as almost ironic to some, because we hold one-third of the fresh water in all of America. But it's because we know little, or in many cases nothing, about our State's aquifers, and not much more is known about the water contained in our 3 million lakes, our 12,000 major rivers and thousands of streams, creeks and other ponds.

We've got 10 rivers that flow for more than 300 miles, and yet we have fewer than 100 stream gaging stations. We've got about one working gage for each 10,000 square miles. Now you contrast this to the situation in the lower 48, and the Pacific-Northwest in particular, where you have one stream gage for each 365 square miles. So for Alaska to equal that level of gage activity—and these gages are very important to help with flood predictions, to determine the water available to fight wildfires—we estimate that the State would need a total of about 1,600 gages. And this could cost the USGS nearly a half billion dollars to collect that much data for a decade, the length of time needed for the data to be truly mean-

ingful to aid in resource decisions. And while our legislation is not seeking anywhere near such a commitment, it will help to improve gage information for flood forecasting, and should result in studies of aquifers in the Railbelt Area, southeast, where Alaskans are increasingly getting their water from wells.

I hope to hear from the administration in support of the study measure since the population in the south central area and on the Kenai Peninsula is growing. It's time that we have an understanding as to how the aquifers in the area function.

Before we move on to our witnesses, I would ask if any of my colleagues have opening statements that they would like to make. Senator Johnson, you've got comments, I understand, on the Pactola Dam, and Senator Smith, you would like to make comments as well.

**STATEMENT OF HON. TIM JOHNSON, U.S. SENATOR  
FROM SOUTH DAKOTA**

Senator JOHNSON. Well, thank you, Senator Murkowski. I appreciate your leadership on this subcommittee and your work on a whole array of important bills that are before the committee. I would, in particular, like to express my views on S. 819, the Pactola Reservoir Reallocation Authorization Act. It's one of the bills on today's subcommittee agenda.

I appreciate the appearance of Commissioner Keys before the subcommittee. It's good to see you again, Commissioner. We would love to have you out to South Dakota, where we're making good progress on some of the world's largest and most ambitious rural water supply projects.

I want to point toward a bill I introduced earlier this year that is on today's subcommittee agenda, S. 819, the Pactola Reservoir bill. It's a straightforward solution to an agreement reached in 2000 between the Bureau, the city of Rapid City, South Dakota, and the Rapid Valley Irrigation District to reallocate the construction costs from the Pactola Dam and Reservoir. Enacting this bill will ensure that Rapid City and other water users retain a reliable supply of water for municipal, irrigation, as well as fish and wild-life purposes.

In negotiating a new repayment contract with Rapid City, the Bureau understands the changing realities of Western water uses for municipal and industrial demands now outstrip traditional irrigation requirements. The passage of this bill provides the Bureau with the authority to execute the new contract while ensuring Rapid City with a reliable and secure water supply for decades to come. So, again, welcome Commissioner Keys and Dr. Holland-Bartels. I appreciate the Bureau's support of the bill, and I look forward to the testimony from witnesses.

Senator MURKOWSKI. Thank you, Senator Johnson.  
Senator Smith.

**STATEMENT OF HON. GORDON SMITH, U.S. SENATOR  
FROM OREGON**

Senator SMITH. Thank you, Madam Chairman, for conducting this hearing today. I have two bills before the subcommittee, and I want to extend a special welcome to Mr. Elmer McDaniels, the

manager of the Tumalo Irrigation Water District who has traveled here from Oregon to provide testimony on S. 247. I look forward to his testimony, and all of the other witnesses today.

S. 247 would authorize the Secretary of the Interior to assist in the planning, design, and construction of the Tumalo Irrigation District Water Conservation Project in Deschutes County, Oregon. This project involved piping about 6 miles of open canals. This will enable the District, in accordance with State water law, to return an estimated 20 cubic feet per second of conserved water to in-stream flows in the Tumalo Creek and the Deschutes River.

In recent years, sections of the Deschutes River below diversions by the Federal Reclamation Projects in the Basin have dropped as low as 30 cubic feet per second during certain times of the year. The Deschutes Basin is in arid central Oregon, and there are several federally listed fish species in the river. The water return to in-stream flows under this conservation project would be significant, and could also help Reclamation mitigate the impact of its Federal project operations. This project will also enhance public safety in the region by eliminating the concerns related to open canals. By replacing these open canals with pressurized pipelines, it will also improve the delivery of irrigation water to farmers in the Tumalo Irrigation Service Area.

The bill, as introduced, provides for the District to receive credit for the value of water return to in-stream flows. As stated above, the enhanced flows will relieve pressure on Federal project operations, enhance fish habitat for ESA listed species, and help meet environmental restoration goals of this important tributary of the Columbia River.

There's precedent for calculating the value of water against the non-Federal cost-share obligations. Implementation of the 1997 cooperative agreement between the States of Nebraska, Wyoming and Colorado, and the Department of the Interior, relating to the Platte River, recognized that the conserved water added significant economic value to the restoration program. The agreement gave respective States credit for the water contributed. If we're going to meet the Federal goals for recovery of fish species in the arid West, we simply have to begin recognizing the economic value of water conserved by non-Federal partners, such as the Tumalo Irrigation District.

The second bill I sponsored that will be heard today is S. 648, which would re-authorize the Bureau of Reclamation's authority under title I of the Reclamation States Emergency Drought Relief Act to 2010. These authorities are currently set to expire at the end of the year. The activities covered under this important program include construction, management and conservation activities to minimize losses and damage from drought conditions. The bill extends the authority to make loans to water users for these activities and for the purchase and conveyance of water. Reclamation would be able to purchase water from willing sellers in accordance with State water law, for re-sale on a temporary basis to participate in State water banks. It also provides greater flexibility in the use of reclamation facilities for the storage and conveyance of water. The Governors of affected States, or the governing bodies of affected tribes must request temporary drought assistance for the



program to be operable in the respective State or reservation. As much as we all wish that the droughts experienced throughout the recent years are going to end, it's unrealistic to think that droughts will cease on September 30, 2005. These authorities are important tools that help Reclamation respond to the emergency drought needs of Western communities and reservations, and I would urge the expeditious consideration of this bill as well. Again, I thank our witnesses today, and look forward to their testimony. Thank you, Madam Chair.

Senator MURKOWSKI. Thank you.  
Senator Wyden.

**STATEMENT OF HON. RON WYDEN, U.S. SENATOR  
FROM OREGON**

Senator WYDEN. Madam Chair, thank you very much. I'm not going to be able to stay, I just want to make a quick comment about S. 247, and also commend my colleague, Senator Smith, for both of his bills. S. 247, in particular, is a project we feel strongly about because of its importance in central Oregon and the Deschutes River, specifically. My sense is that S. 247 will save water and will help the farmers and fish, but I think it's also going to save lives. There was a horrible tragedy with a youngster drowning in that part of our State. That's why Senator Smith and I have legislation that we think is going to achieve multiple benefits for our part of the country. And we thank you, Madam Chair, for scheduling this hearing. As we've tried to do in our State, make it thoroughly bipartisan, and hopefully we can move quick.

Senator MURKOWSKI. Thank you.

With that, let's turn to our first panel. Commissioner Keys, if you would like to lead off, please.

**STATEMENT OF JOHN W. KEYS, III, COMMISSIONER, BUREAU  
OF RECLAMATION, DEPARTMENT OF THE INTERIOR**

Mr. KEYS. Madam Chairman, it's always a pleasure to be here. We have submitted four formal testimonies, and would ask that they be made part of the record, please.

Senator MURKOWSKI. Each will be made part of the record.

Mr. KEYS. The first bill, S. 648, would extend until 2010 title I of the Reclamation States Emergency Drought Relief Act of 1991. Title I provides authority for construction, management and conservation measures to alleviate drought impacts across the Western United States. Except for wells, all title I work must be temporary. S. 648 would simply extend the expiration. The \$90 million ceiling in the law, we think, is sufficient to carry us through that period.

Title I authorizes Reclamation to participate in water banks established under State law, facilitate water acquisitions between willing buyers and willing sellers, acquire conserved water for use under temporary contracts, make facilities available for storage and conveyance of project and non-project water, make project and non-project water available for non-project uses, and acquire water for fish and wildlife purposes on a non-reimbursable basis.

Title I often helps smaller, financially-strapped communities deal with the drought. Reclamation is often the last resort for those

small communities, that's one of the reasons we highly support S. 648.

Now, Madam Chairman, the administration also supports S. 819, to authorize the Secretary of the Interior to allocate construction costs of the Pactola Dam and Reservoir through municipal, industrial, fish and wildlife purposes. This reallocation reflects the increasing water demands from Pactola Reservoir for municipal and industrial purposes, specifically within Rapid City and throughout the surrounding areas, for fish and wildlife purposes in and along Rapid Creek.

Because current law prevents us from reallocating multi-purpose construction costs, Reclamation's new repayment contract with Rapid City is contingent on legislation. That's why S. 819 will help us secure a reliable water supply for the city and the surrounding area to support expected growth well into the future.

The administration also supports S. 891, to extend the water service contract to the Ainsworth Unit in Nebraska. In 2002, the Ainsworth Irrigation District undertook the process to transfer title of Ainsworth Unit from Reclamation to the District. Consequently, the District did not anticipate needing to also go through the extensive contract process. However, Ainsworth District recently concluded that due to unique circumstances, title transfer was no longer its preference. So it asked Reclamation to discontinue the title transfer process, and instead start work on renewal of its existing water service contract.

Throughout this process, Ainsworth has acted in good faith, and worked closely with us to meet the needs of its water users. S. 891 would extend the existing water service contract for an additional 4 years, so that the current water service contract renewal process can be completed. Reclamation law requires us to have a contract in place in order to deliver water. That's why we support S. 891.

Finally, Madam Chairman, let me share our views on S. 247, a bill to authorize conversion of 6 miles of open canal in the Tumalo Irrigation District into a pipeline. This District is not part of a Reclamation project, but it did have a repayment contract for rehabilitation of Crescent Lake Dam, and holds title to all of its project facilities. While the administration supports conserving water to improve in-stream flows without diminishing water for agriculture, as this pipeline would do, we cannot support S. 247 as written.

S. 247 would create credits to offset the non-Federal cost share, including credits for water left in-stream after project completion, and credits for foregone revenue from reduced district assessments and headgate fees. Project sponsors value the total credits at \$7.4 million to the project, including \$5.4 million for the value of conserved water, \$1.7 million for reduced assessments and headgate fees, and \$300,000 for in-kind services. Established Federal policy only allows credit for the actual costs of certain in-kind services, and calculating the cost-share requirement for water conservation projects. The credit system proposed in S. 247 does not meet these requirements.

The sponsors estimate that the total cost of the project is \$14 million, and their contribution is 50 percent. However, S. 247 authorizes \$14 million of Federal money to construct the Project. This

gap explains why the administration cannot support S. 247 as currently written.

Madam Secretary, I'm pleased to answer any questions. That ends my oral testimony.

[The prepared statement of Mr. Keys follows:]

PREPARED STATEMENT OF JOHN W. KEYS, III, COMMISSIONER, DEPARTMENT OF  
RECLAMATION, DEPARTMENT OF THE INTERIOR

ON S. 247

Madam Chairman, I am John W. Keys, Commissioner of the Bureau of Reclamation. Thank you for the opportunity to testify on S. 247, the Tumalo Water Conservation Project Act of 2005.

S. 247 would authorize a project that would convert approximately 6 miles of open canal in the Tumalo Irrigation District (TID) into a pipeline. TID is not part of a Reclamation project, but it did have a repayment contract for rehabilitation of Crescent Lake Dam. The District satisfied its repayment obligation to the United States in 1998 and holds title to all project facilities. The Tumalo Water Conservation Project, known locally as the Tumalo Feed Canal pipeline, would conserve up to 21 cubic feet per second (cfs) of water for both agricultural and instream uses in Tumalo Creek in Central Oregon. While the Administration supports the aim of the TID to conserve water and to improve instream flows while not diminishing the amount of water available for agricultural uses, we cannot support the legislation as written.

S. 247 creates a system of credits for offsetting the required 50% non-Federal cost share. Credits would be given for TID expenses in project design, planning and construction, for water left instream after completion of the project, and for foregone revenue from reduced District assessments and head gate fees. Project sponsors have calculated that the credit system amounts to approximately \$7.4 million of "contribution" to the project, including \$5.4 million for the value of the conserved water, and \$300,000 for the value of in-kind services. Federal guidelines found in the Code of Federal Regulations and OMB circulars only allow credit for the actual costs of certain in-kind services in calculating the cost share requirement for water conservation projects. These include items such as development of project designs, survey work, NEPA, ESA and cultural resource compliance costs, use of construction equipment and labor, and other activities that directly relate to project completion. The credit system proposed in S. 247, section 3(b)(2)(B) does not meet these requirements.

The sponsors estimate that the total cost of the project is \$14 million, and thus characterize their "contribution" as 50%. However, the U.S. is being asked to pay up to \$14 million to construct the project, even though the legislation states that the Federal cost-share shall be 50%.

This concludes my written statement. I am pleased to answer any questions.

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ON S. 648

Madam Chairman, I am John W. Keys, Commissioner of the Bureau of Reclamation (Reclamation). I am pleased to appear for the Department in support of S. 648 which extends Title I of the Reclamation States Emergency Drought Relief Act of 1991 until the year 2010.

Title I provides authority for construction, management, and conservation measures to alleviate the adverse impacts of drought, including mitigation of fish and wildlife impacts. However, wells are the only permanent construction authorized under the Act. All other Title I work must be of a temporary nature. No new Reclamation projects are authorized under Title I; Reclamation does not own, operate, or maintain projects funded under it. S. 648 would simply extend the expiration date. The \$90 million ceiling in the law, initially authorized in 1991, is adequate for the foreseeable future.

Title I also provides Reclamation with the flexibility to meet contractual water deliveries by allowing acquisition of water to meet requirements under the Endangered Species Act, benefiting contractors at a time when they are financially challenged. Additionally, Title I authorizes Reclamation to participate in water banks established under state law; facilitate water acquisitions between willing buyers and willing sellers; acquire conserved water for use under temporary contracts; make facilities available for storage and conveyance of project and nonproject water; make

project and nonproject water available for nonproject uses; and, acquire water for fish and wildlife purposes on a nonreimbursable basis.

Title I often helps smaller, financially-strapped entities (towns, counties, tribes) that do not have the financial capability to deal with the impacts of drought. In many cases, Reclamation is the “last resort” for these communities.

The Bureau of Reclamation has a long history of effective and responsive water management in good times and bad. While we consider ideas to make drought relief even more effective through improved interagency cooperation and other changes, we recognize that the reauthorization of Title I is necessary. S. 648 allows Reclamation the flexibility to continue delivering water to meet authorized project purposes, meet environmental requirements, respect state water rights, work with all stakeholders, and to provide leadership, innovation, and assistance. This is why Reclamation supports S. 648.

This concludes my statement. I am pleased to answer any questions.

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ON S. 819

My name is John Keys. As Commissioner of the Bureau of Reclamation, I am pleased to appear today in support of S. 819, the Pactola Reservoir Reallocation Authorization Act of 2005.

Mr. Chairman, S. 819 would authorize the Secretary of the Interior to reallocate construction costs of Pactola Dam and Reservoir, Rapid Valley Unit, and the Pick-Sloan Missouri Basin Program, South Dakota, to municipal, industrial, and fish and wildlife purposes. This reallocation reflects the increasing water demands from Pactola Reservoir for municipal and industrial purposes, specifically within Rapid City and throughout the surrounding areas, and for fish and wildlife purposes in and along Rapid Creek.

#### *Background*

Rapid Valley Unit is served, in part, by the Pactola Reservoir. Located on Rapid Creek in the Black Hills of South Dakota approximately 15 miles west of Rapid City, Pactola was constructed between 1952 and 1956. The Rapid Valley Irrigation District (District) consists of 8,900 acres of privately developed land and associated irrigation diversion and supply works. The irrigable land is situated along Rapid Creek immediately downstream of the City. Pactola Reservoir supplemented the District's 8,000 acre-foot water supply from Deerfield Dam. The Rapid Valley Unit provides a full water supply for Rapid City (including Ellsworth Air Force Base), flood protection, recreation, and fish and wildlife.

On October 20, 1952, the City entered into a 40-year water service contract for municipal and industrial water supply from Pactola Reservoir. Since the contract's expiration in 1992, annual water service contracts have been issued to provide water to the City until a replacement contract can be executed. The District also executed a 40-year water service contract with the U.S. on January 6, 1961, for a supplemental irrigation water supply from Pactola Reservoir. This contract expired in 2001 and the District decided to not renew it. The District will rely on its natural flow rights, return flows from the City's water treatment plant, water purchased from the City, and water from the Deerfield Dam and Reservoir.

Reclamation has negotiated a new repayment contract with Rapid City. However, the McGovern Amendment to the Department of Energy Organization Act prohibits Reclamation from reallocating multipurpose construction costs without specific

Congressional approval. Therefore, execution of the negotiated contract is contingent on authority from Congress to reallocate the construction costs of Pactola Dam and Reservoir currently allocated to irrigation purposes to municipal, industrial, and fish and wildlife purposes.

#### *Conclusion*

Passage of this Act will provide Reclamation with authority to enter into a new long-term contract with Rapid City to provide a water storage right of 49,000 acre-feet in Pactola Reservoir. This contract will secure a reliable water supply for the city and the surrounding area to support expected growth well into the future. Reclamation will retain 6,000 acre feet of storage in the reservoir to be used for fish and wildlife, and other authorized beneficial purposes.

I am pleased to answer any questions.

ON S. 891

Madam Chairman, I am John W. Keys, III, Commissioner of the Bureau of Reclamation. I am pleased to present the views of the Department of the Interior in support of S. 891.

The Ainsworth Unit, a part of the Pick-Sloan Missouri Basin Program, is operated and maintained by the Ainsworth Irrigation District, Ainsworth, Nebraska. The District receives its project water from Merritt Dam and Reservoir, located on the Snake River, which has its confluence with the Niobrara River just southwest of Valentine, Nebraska. The Ainsworth Irrigation District and Reclamation have an existing water service contract that will expire on December 31, 2006.

In November, 2002, the Ainsworth Irrigation District Board of Directors adopted a resolution to request title transfer of the Ainsworth project facilities from Federal ownership to the District. The District worked with Reclamation following the process outlined in the Title Transfer Framework document. However, on February 16, 2005, the District adopted a subsequent additional resolution requesting renewal of its existing water service contract and discontinuation of the title transfer process.

Reclamation encourages water districts to explore title transfer as the Ainsworth Irrigation district did. However, due to the unique circumstances that it faces, the District determined after a comprehensive analysis that title transfer was not the appropriate action for it at this time. Because the District anticipated title transfer for more than two years it was not, at the same time, preparing for contract renewal. This legislation would extend the existing water service contract for an additional 4 years to provide time for the current water service contract renewal process to be completed. Reclamation law requires us to have a contract in place in order to deliver water. That is why we support S. 891.

I am happy to answer any questions.

Senator MURKOWSKI. Thank you.

Dr. Bartels.

**STATEMENT OF DR. LESLIE HOLLAND-BARTELS, DIRECTOR,  
U.S. GEOLOGICAL SURVEY, ALASKA SCIENCE CENTER,  
ANCHORAGE, AK**

Dr. HOLLAND-BARTELS. I'm Leslie Holland-Bartels, Director of the U.S. Geological Survey's Alaska Science Center, located in Anchorage, Alaska. I thank you for the opportunity to provide the views of the Department of the Interior on S. 1338, the Alaska Water Resources Act of 2005 and on S. 49, the Alaska Floodplain and Erosion Mitigation Commission Act of 2005.

The Department agrees that the goals of each bill are commendable and the needs that could be addressed are real. I will address each of these bills separately.

S. 1338 directs the Secretary of the Interior, acting through the Bureau of Reclamation, BOR, and the Director of the U.S. Geological Survey, to conduct a series of ground-water resource studies in Alaska, and a review of the need for an enhancement of the stream-flow information collected by the USGS and the State.

The role identified for the Department in this bill is consistent with both BOR and USGS leadership roles in monitoring and assessing water resources. The USGS has a long history of conducting water resource assessments; however, Alaska has not been covered in these studies. Basic ground-water information is still needed in Alaska so that specific resource management questions can be addressed. For example, many Alaska citizens depend on good, quality ground-water for domestic consumption and other uses; however, reliable assessments of ground-water availability and quality are limited for expanding population areas where individual wells often supply homes and businesses with drinking water, and waste water is posited through onsite septic systems.

Specific knowledge of aquifer properties will support community planning to protect the ground-water, and to ensure adequate supplies for both domestic and industry-related consumption. Recent observations have been made of elevated nitrate and arsenic concentrations in some shallow aquifers in municipal areas of the State. The information collected under this legislation would allow for identification of conditions that may contribute to these elevated concentrations, and more importantly, provide for a basis for mitigation.

Alaska has abundant energy resources which may require the use or disposal of large amounts of ground-water. Recent interests in the development of coalbed methane, for example, in the Matanuska-Susitna and Kenai Peninsula Boroughs highlights the need for detailed knowledge about ground-water resources as resource managers work to understand the connections among aquifers, to assess consequences of large-scale de-watering of the coal aquifers. S. 1338 also requests a view for the need for enhancement of streamflow information collected by the USGS in Alaska related to critical water needs.

The USGS has a program in place that can assist in developing data for this task. The National Streamflow Information Program, NSIP, is currently 18 nationally prioritized gages to provide surface water information in Alaska. They also support State priorities. For example, last year some 6 million acres of land were consumed by fire in Alaska. Our four NSIP streamgages within the burn area provided critical information for local land managers. However, fire managers now realize that they require additional, similar kinds of data to assess watershed effects of fire on hydrologic response and recovery.

In addition to the 18 fully federally-funded gaging stations, the USGS in Alaska also works closely with a broad spectrum of partners to increase its monitoring and studies programs through cost sharing.

Finally, also within the Department, the U.S. Bureau of Reclamation's Science and Technology Program finds solutions to complex management challenges through research and development of state-of-the-art technology, such as those used by the Bureau's Pacific Northwest Hydromet remote data collection platforms. The expertise of these two Department Bureaus is highly relevant to the tasks contemplated by this legislation.

I also appreciate the opportunity to provide the Department's view on S. 49, the Alaska Floodplain and Erosion Mitigation Commission Act. We believe that the Department should be a part of any process intended to develop solutions to coastal and river erosion and sustainability of Alaska native communities. In addition, USGS has science capabilities which may be key inputs in provisions envisioned in S. 49.

However, the Department has a number of concerns. Federal programs that address flooding generally require satisfaction of a cost-benefit analysis to qualify for Federal funding. Therefore, the administration objects to those provisions that would potentially require or authorize the Secretary to implement solutions if the costs are greater than the benefits. We also have concerns about the costs of implementing this legislation.

We do believe that our agencies have a role to play in this process, however, and offer to work with the subcommittee to develop mutually acceptable legislation.

In conclusion, Alaska is a State experiencing significant challenges in its water patterns, both in quantity and timing of flow, challenging Alaska native, State, and Federal agency management efforts. Such water changes can and do affect infrastructure stability, fish reproduction and accelerated river erosion and flood patterns. Establishing a viable and reliable core of federally funded stream gages and funding support for ground-water research monitoring assessment would allow the public and resource managers to make science-based decisions on allocation of water for competing uses. We also support a process for evaluating the options for those Alaskan native villages that are most subject to a risk of flood damage. However, funding for the activities of these two bills would remain subject to availability of resources within the administration priorities. In addition, for the reasons discussed above, we cannot support S. 49 in current form, but offer to work with the subcommittee to develop mutually acceptable legislation.

Thank you, Madam Chairman, for the opportunity to present this testimony, and I'm pleased to answer any questions.

[The prepared statement of Dr. Holland-Bartels follows:]

PREPARED STATEMENT OF LESLIE HOLLAND-BARTELS, U.S. GEOLOGICAL SURVEY,  
DEPARTMENT OF THE INTERIOR, ON S. 49 AND S. 1338

Madam Chairman and Members of the Subcommittee, I am Dr. Leslie Holland-Bartels, Director of the U.S. Geological Survey's (USGS) Alaska Science Center, located in Anchorage, Alaska. I thank you for the opportunity to provide the views of the Department of the Interior (Department) on S. 1338, the "Alaska Water Resources Act of 2005" and on S. 49, the "Alaska Floodplain and Erosion Mitigation Commission Act of 2005."

The Department agrees that the goals of each bill are commendable and the needs that could be addressed are real; however, we have concerns with these bills, including the availability of funding for the work proposed in the context of overall funding for the Administration's priorities. I will address each bill independently in my statement and will begin with S. 1338, the "Alaska Water Resources Act of 2005."

S. 1338, THE "ALASKA WATER RESOURCES ACT OF 2005"

S. 1338 directs the Secretary of the Interior, acting through the Bureau of Reclamation (BOR) and the Director of the U.S. Geological Survey, to conduct a study on ground-water resources in the State of Alaska. The role identified for the Department in this bill is consistent with BOR and USGS's leadership role in monitoring and assessing ground-water resources.

The bill requires a study that includes a survey of accessible water supplies (including aquifers on the Kenai Peninsula, in the municipality of Anchorage and the Matanuska-Susitna Borough), and a review of the need for enhancement of the streamflow information collected by the USGS in Alaska relating to critical water needs.

The USGS has a long history of conducting ground-water assessments on both a local and regional scale. In the 1950s and 1960s studies were conducted across the nation to provide a basic understanding of geohydrologic conditions at a county-level scale and, in the 1980s, 25 regional aquifer systems were studied in detail. However, Alaska was not covered in these studies. As a result, basic geohydrologic information is needed in Alaska so that specific resource management questions can be addressed. Congress directed the USGS in their fiscal year 2002 appropriation to "... prepare a report to describe the scope and magnitude of the efforts needed to provide periodic assessments of the status and trends in the availability and use of freshwater resources." That report, USGS Circular 1223, states that ground-water levels should be based on repeated observations at relatively large numbers of observation wells in a wide range of representative hydrogeologic environments, and we continue to work toward that goal.

Many Alaska citizens depend on good quality ground water for domestic consumption and other uses. However, reliable assessments of ground-water availability and quality are limited for expanding population areas such as the Municipality of Anchorage, the Kenai Peninsula Borough, Fairbanks-North Star Borough, and the Matanuska-Susitna Borough. In many of these areas, individual wells supply homes and businesses with drinking water, and wastewater is disposed of through onsite septic systems. As populations and development activities on the surrounding landscape increase in these areas, additional consumption and demand on these aquifers is coupled with an increased risk of ground-water contamination. Specific knowledge of the aquifer properties will support proper planning to protect the ground water from potential contamination and to ensure there is an adequate supply and recharge needed for both domestic and industry related consumption.

For example, recent observations have been made of elevated nitrate concentrations in drinking water in parts of the Municipality of Anchorage and the Fairbanks-North Star Borough. Arsenic concentrations in some shallow aquifers in the Fairbanks-North Star and Kenai Peninsula Boroughs exceed the new EPA maximum contaminant level standards. The information collected under this legislation would allow for the determination of sources of water to these wells, and for the identification of geochemical conditions that may contribute to these elevated concentrations and provide a basis for mitigation.

Ground water is also important to sustaining streamflow during times of low precipitation and surface runoff. Alaska's world-renowned salmon fisheries are economically important to the State and to local communities. Salmon that spawn in streams throughout the State incubate eggs in the streambed gravels where infiltrating ground water sustains eggs during dry periods. Activities that disrupt the interaction between ground water and streams may have adverse effects on these fisheries. For example, increased withdrawals of ground water may lower water tables sufficiently that the connection to the streambed is lost. A lowered ground-water table in Juneau through natural geologic processes is likely responsible for the dewatering of some small streams that formerly supported significant runs of salmon. Current information on the interaction between ground water and streams is lacking for important salmon spawning areas in the Kenai Peninsula and Matanuska-Susitna Boroughs.

Moreover, Alaska has abundant energy resources, including oil, natural gas, coal, and coalbed methane, the development of which may require the use or disposal of large amounts of ground water. Recent interest in the development of coalbed methane in the Matanuska-Susitna and Kenai Peninsula Boroughs highlights the need for detailed knowledge about ground-water resources. Resource managers need to understand the connections among aquifers to assess consequences of large scale dewatering of the coal aquifers. The USGS has conducted detailed studies related to development of coalbed methane in Wyoming and Montana, but not yet in Alaska.

Infrastructure expansion is also necessary to support expanding populations. Gravel used in construction material may be available locally, but removal of gravels may alter ground-water flow patterns in shallow aquifers. Gravel extraction and its potential effect on ground water has been a focus of attention for citizens in the Municipality of Anchorage, in the Homer/Anchor Point area of the Kenai Peninsula Borough, and in the Fairbanks-North Star Borough. Shallow gravel deposits are often the aquifers that provide drinking water for individual residents and small communities, yet little information exists on the extent of these aquifers or alternative water supplies.

Other types of resource extraction, such as development of world-class mineral deposits are ongoing or planned in Alaska. Newly discovered deposits, such as the Pebble gold-copper project near Iliamna, Alaska are in areas where minimal information exists on water resources. The Pebble gold-copper project is in the headwaters of salmon and trout fisheries important to subsistence users. An assessment of water resources that results in predictive models describing interactions between ground water and surface water will allow developers and regulators to evaluate alternative designs for development and operation of the project. The USGS has extensive experience in conducting detailed studies of hydrologic and water-quality conditions on such a scale. The National Water-Quality Assessment (NAWQA) Program has provided valuable information on major river basins and aquifer system in the nation. One NAWQA study area was located in Alaska and included the Municipality of Anchorage and parts of the Kenai Peninsula and Matanuska-Susitna Boroughs.

S. 1338 also requests "a review of the need for enhancement of the streamflow information collected by the USGS in Alaska relating to critical water needs." The



USGS's program review process focuses on program relevancy, quality, and performance.

The USGS has a program in place that can assist in developing data for this task. National Streamflow Information Program (NSIP) is currently operating 18 gages to provide surface water information. In 2004, 6.4 million acres of land, an area about the size of New Hampshire, were consumed by fire. While the four streamgages operated by the USGS within the burn area provided critical information, local land managers realized that they lacked sufficient credible stream data to assess watershed effects of fire on hydrologic response and recovery. This information will also assist in protecting life and property from flooding events caused, for example, by outburst floods on glacier-dammed lakes, and would allow the National Weather Service to do river and flood forecasting statewide with an appropriate level of certainty.

The USGS in Alaska also works closely with a broad spectrum of partners, including other federal agencies, State and local agencies, and Alaska Native villages. Over \$1.2 million dollars in federal cost share funds were used to partner with State and local agencies in jointly funding critical hydrologic information for their specific agency needs in 2005. For example, the USGS has a long-term relationship with most of these partners such as the Alaska Department of Transportation and Public Facilities, Alaska Department of Fish and Game, and the Kenai Peninsula Borough. We expect these relationships to continue.

Finally, also within the Department, the U.S. Bureau of Reclamation's Science and Technology Program finds solutions to complex water management challenges through research and development of state-of-the-art technology. Reclamation operates a network of automated hydrologic and meteorologic monitoring stations located throughout the Pacific Northwest. This network and its associated communications and computer systems are collectively called Hydromet. Remote data collection platforms transmit water and environmental data via radio and satellite to provide cost-effective, near-real-time water management capability.

The expertise of these two Departmental bureaus is highly relevant to the tasks contemplated by the legislation. However, the Department is concerned with the funding requirements that accompany S. 1338. We note that there are no funds in the Department's FY 2006 budget to implement the legislation, and any future funding would have to compete with other priority projects for funds.

S. 49, THE "ALASKA FLOODPLAIN AND EROSION MITIGATION COMMISSION ACT OF 2005"

I also appreciate the opportunity to provide the Department's views on S. 49, the "Alaska Floodplain and Erosion Mitigation Commission Act." We have concerns about the proposed commission and the potential cost of the legislation. As a result, we cannot support the legislation in its current form, but offer to work with the Subcommittee to develop mutually acceptable legislation.

*Background*

In December 2003, the then-General Accounting Office, now known as the Government Accountability Office, issued a report (GAO-04-142, December 12, 2003) titled "Alaska Native Villages: Most Are Affected by Flooding and Erosion, but Few Qualify for Federal Assistance." That report provides background on the problems associated with flooding and erosion in Alaska Native Villages and recommended, among other things, that Congress direct the relevant federal agencies (the Department was not listed as such) and the Denali Commission, a federal-state partnership designed to provide critical utilities, infrastructure, and economic support throughout Alaska, to assess the feasibility of alternatives for responding to flooding and erosion. We assume that this legislation is a response to that report.

In sum, the GAO report found that 6,600 miles of the State of Alaska's coastline, and many of the low-lying areas along the State's rivers, the areas where most of the Alaska Native villages are located, are subject to severe flooding and erosion. The GAO also found that approximately 86 percent of Alaska Native villages experience some level of flooding and erosion, and identified four villages—Kivalina, Koyukuk, Newtok, and Shishmaref—that were in imminent danger from flooding and erosion and were making plans to relocate. The report also indicated that small and remote Alaska Native villages often fail to qualify for assistance under federal programs addressing these issues because they often do not meet program eligibility criteria.

As noted above, the GAO recommended that Congress direct the relevant federal agencies and the Denali Commission to assess the feasibility of alternatives for responding to flooding and erosion, and listed a number of possible alternatives, including expanding the role of the Denali Commission; directing federal agencies to consider social and environmental factors in analyzing project costs and benefits;

waiving the federal cost-sharing requirement for such projects; and authorizing the “bundling” of funds from various federal agencies.

*The Alaska Floodplain and Erosion Mitigation Commission Act of 2005*

Presumably in response to this recommendation, this legislation would establish a seven-member federal-State commission co-chaired by the Governor of Alaska and an appointee of the Secretary of the Interior. Additional provisions allow the commission to hire staff. The commission is tasked with, among other things, studying flood and erosion processes and the planning needs associated with those processes and the establishment of procedures to obtain the views of the public on land use planning needs. The commission is also to develop recommendations on control and mitigation solutions; budgets and programs of federal and State agencies responsible for administering floodplain management authorities; changes in law and policy necessary or desirable to provide integrated erosion and flood management authority; and other measures designed to ensure coordination, cooperation, the achievement of sustainable Alaska Native communities.

The legislation further directs the Secretary to evaluate and prioritize specific flood and erosion circumstances that affect life and property in Alaska and examine the most cost-effective ways of carrying out flood and erosion control and mitigation solutions devised by the commission for the 9 Alaska Native villages specified in the GAO report—including the 4 villages previously mentioned. The Secretary is authorized to make grants to the State or local governments using the remainder of funds appropriated for flood and erosion control and mitigation solutions, and may take any action necessary to mitigate the loss of structures and infrastructure from flood and erosion using the most cost-effective means practicable to provide the longest-term benefit.

Given the Department’s role in Alaska land management and its relationship with Alaska Natives through the various Alaska-specific land management laws, we believe that the Department and its bureaus should be a part of any process intended to develop solutions to these problems. In addition, the U.S. Geological Survey’s existing science efforts and capabilities have the potential to be key inputs in some of the processes envisioned in S. 49. The USGS carries out coastal and river erosion modeling and assessment, various land form imagery and mapping projects, provides integrated geospatial information access, and offers critical datasets, such as the National Hydrologic Dataset.

However, the Department has a number of concerns with S. 49. Several officials representing federal agencies would be members of the commission. Therefore, any recommendations by the commission could be misconstrued as representing the views of the Executive branch. In this regard, we are particularly concerned by subsections 102(d)(2), 102(d)(4), 102(d)(7), and 105(b)(2), which involve budgetary and legislative recommendations, and recommend deleting these provisions.

Federal programs that address flooding generally require the satisfaction of a cost-benefit analysis to qualify for federal funding, therefore the Administration objects to those provisions of title II that would potentially require or authorize the Secretary to implement solutions if the costs are greater than the benefits, albeit using the “most cost-effective” technology or means. We also have concerns about the costs of implementing this legislation. There are no funds contained in the Department’s fiscal year 2006 budget to fund the commission, and future funding for such a commission or to implement its recommendations would have to compete with potentially higher priority programs. As a result, we cannot support S. 49 in its current form. We do believe that our agencies have a role to play in this process, however, and offer to work with the Subcommittee to develop mutually acceptable legislation.

*Conclusion*

In conclusion, Alaska is a state experiencing significant changes in its water patterns both in quantity and timing of flow, challenging both Alaska Native and state and federal agency management efforts. Such water changes can and do affect infrastructure stability (e.g. road bridge scour), fishery productivity, and accelerated river erosion and flood patterns.

Establishing a viable and reliable core of federally funded streamgages and enhanced funding to support ground-water research, monitoring and assessment would allow the public and resource managers to make science-based decisions on allocation of water for the competing interests. We also support a process for evaluating the options for those Alaska Native villages that are most subject to a risk of flood damage.

However, funding for the activities in S. 1338 and S. 49 would remain subject to available resources within the Administration’s priorities. In addition, for the rea-

sons discussed above, we cannot support S. 49 in its current form, but offer to work with the Subcommittee to develop mutually acceptable legislation.

Thank you, Madam Chairman, for the opportunity to present this testimony. I will be pleased to answer questions you and other Members of the Subcommittee may have.

Senator MURKOWSKI. Thank you. I appreciate the testimony from both of you. I've got a couple of quick questions for you, Commissioner Keys, and then I'll turn to the Alaska issues.

On the first bill that you referenced—this is the Reclamation States Emergency Drought Relief Act, which you do support—the extension, I guess, is now 5 years in this legislation. Should we extend the Drought Act any further than that? Any merit to that?

Mr. KEYS. Madam Chairman, I think you could extend it as long as you wanted to. Five years seems to be a figure that works well with the amount, with the cost ceiling that we have—in other words, that would make them coincide fairly well—otherwise I think you could do it for as long as you saw fit.

Senator MURKOWSKI. Just tying it in with the funding aspect.

Mr. KEYS. Yes, ma'am.

Senator MURKOWSKI. With regards to S. 819, the Pactola Reservoir Reallocation, is there any opposition to this proposed reallocation of costs?

Mr. KEYS. Senator, I have heard of no opposition. It is a good bill, it is the right thing to do, it helps that portion of South Dakota address its water needs into the future. The irrigation district there has other water that they are using now, it did not want to renew its contracts for that storage space, and it's a great use of that water for the area.

Senator MURKOWSKI. And then S. 891—this is the Water Service Contract Extension in Nebraska, you referenced in your testimony—I think you used the terms “unique circumstances” where title was not transferred there; what happened there? What were these circumstances?

Mr. KEYS. Madam Chairman, I think when Ainsworth started looking at title transfer, they had just seen the successful title transfer of the North Loop Unit in Nebraska. The North Loop Unit took almost 10 years to get transferred, with all of the environmental studies, the other work that had to be done. I think they thought it was going to be a fairly easy process. It turned out that there was extensive environmental work that had to be done, and while we didn't think it was going to take 10 years, it took more than 1 or 2 years for them to get done. Their whole objective in this thing is so they didn't have to renew the contract that's coming due next year. They saw that they couldn't get that done, so they just dropped the title transfer action and went to extension of the contract.

Senator MURKOWSKI. And this extension to 4 years, is this a typical extension, then?

Mr. KEYS. It is a little longer than usual, but we wanted to give ourselves and the District plenty of time to be able to negotiate a good contract.

Senator MURKOWSKI. And then last, on S. 247, the Tumalo Water Conservation Project Act, what is the difference between the method of crediting and accounting for water proposed in this water conservation project?

Mr. KEYS. Senator, I'm not sure that I quite understand the question.

Senator MURKOWSKI. Well, you've got a method of crediting and accounting. So, you've got this proposed for the water conservation project there in Deschutes, and the Platte River Basin; how does that work?

Mr. KEYS. In the Platte River Basin, that is an effort that's been underway for several years. When it first started, it appeared that the cost of doing the Endangered Species Act work in the Platte River was going to be about \$75 million, and it was supposed to be 50/50, cost shared between the States, the three States—Nebraska, Wyoming and Colorado—and the Federal Government. Part of the investment of that project was to go into the river and purchase water and land to make the Endangered Species Act solution work, but it was part of the project, and that cost was included in the cost of the project. As they got further along in the plan, the States said, "Why would you go buy the water?" In other words, "We give you the money, and you go buy the water, we will supply the water for that much money that you were going to spend on purchasing water."

So the cost of purchased water and its benefits were inside of the project plan. That's not true in Tumalo. In Tumalo, you have a \$14 million project cost estimate, and the legislation says 50 percent can only come from the Government, which is \$7 million. That leaves \$7 million that nobody's there to pay, because there is an outside water source that they're saying has a benefit, but it's not part of the project, so it was not included in the original project cost.

Senator MURKOWSKI. Would the administration then support this legislation if the cost-share amounts were amended to reflect the credit for the actual costs?

Mr. KEYS. Madam Chairman, if it were corrected, that would mean that the project cost would be almost \$20 million. Fifty percent would mean the districts would have to come up with \$3 or \$4 million. So that being said, it is still a \$10 million drain on the Reclamation budget for a non-Reclamation project. To fund work on a non-Reclamation project takes money away from the operation and maintenance moneys that we depend on for Reclamation facilities. I would have to ask the administration again what their position would be on that bill.

Senator MURKOWSKI. Dr. Bartels, let's go to you for a couple of questions on the Alaska bills here. First, on the Alaska Water Resources Act, in your written testimony—quite honestly, I thought your testimony was terrific, because it was very inclusive in terms of why we need to move forward with this legislation—you had the one sentence at the end that says, "We've got a problem with the cost."

Because I'm trying to determine where the administration is on this legislation and whether or not they support it. Is it just the cost that has raised the concern? And, essentially, where does the administration come down on S. 1338?

Dr. HOLLAND-BARTELS. I believe the administration supports S. 1338, it's just a matter of setting this within the other competing priorities.

Senator MURKOWSKI. Fair enough. We have both discussed the number of stream gages in the State, and essentially the inadequacy that is out there. Is it correct to state that the numbers that we are looking at right now, the 100 that we know are there, we have to assume that we may be talking about 85 of them that are actually working? Is it correct to say that this is the bare minimum needed for flood forecasting in a State as big as ours, and it's almost a matter of health and safety that we look at getting more stream gages in place?

Dr. HOLLAND-BARTELS. I guess I would have to support that statement. The number that's provided is the basic number to fit in within the national framework of the National Streamflow Information Program. So in that sense, the number that we have provided fits in in that national program. Those things that are specific to the uniqueness of Alaska are not reflected in that effort.

Senator MURKOWSKI. Are there any technologies that are out there that Alaska could benefit from in terms of—those technologies that could help us develop more potable water, what's out there, and are we constrained at all because of either the climate or geography?

Dr. HOLLAND-BARTELS. That's a question that is outside of my area of expertise, and I would be happy to provide more information.

Senator MURKOWSKI. We're always looking for the better mousetrap when it comes to how we're going to provide the water, particularly out in those north villages.

With regards to S. 49, the Floodplain and Erosion Mitigation, you have indicated in your statement that USGS wants to be part of any of this process in terms of identifying—is it fair to say that the Department agrees that some kind of a commission is appropriate or is needed to coordinate and to really work on developing a policy with regard to how we deal with erosion and flooding in Alaska?

Dr. HOLLAND-BARTELS. I think there are two points, two answers to this question. One, the Department has concerns about the cost as this relates to other administration priorities. It does support, sort of, the underpinning issues that exist for the native communities in Alaska, and also believes that the Department can bring talent to the table. We don't necessarily believe that, as outlined in the legislation, either the Bureau of Reclamation or the U.S. Geological Survey are the appropriate things for that.

Senator MURKOWSKI. Would the Department prefer to be left out of it altogether?

Dr. HOLLAND-BARTELS. I don't think so. I think we would like to be able to provide the science that we're known for in support of those activities.

Senator MURKOWSKI. Do you think that the administration would support an Alaska State government-led commission within the bipartisan authorization that was authorized to recommend Federal program, budget and performance-based accountability charges?

Dr. HOLLAND-BARTELS. I can't answer that question, but I'd like to reiterate our commitment to working with the subcommittee on language—

Senator MURKOWSKI. And I think that's where we would like to be able to take this from here. I know that Senator Stevens still will be working on this issue, but we'd like to know that we've got that level of cooperation. And it sounds like we're in alignment in terms of the goals out there, it's just a question of how we might best form these commissions to make it do what we all hope it could do.

Senator Johnson.

Senator JOHNSON. For Commissioner Keys, relative to S. 819, the Pactola Reservoir Reallocation Authorization Act, are you familiar with similar legislation, either proposed or ultimately enacted, that reallocated costs from one authorized use to another authorized use? Is this something that has been done before?

Mr. KEYS. Senator Johnson, it has been done before. In this case, with the nature of the contract and the language in it and so forth, it does need Senate approval to do it, but we've done that before.

Senator JOHNSON. Very good. Relative to S. 648 and drought relief, your testimony indicated that Reclamation is considering ideas to make drought relief more effective. Could you share with us a few of the ideas that we are just thinking about relative to greater efficiencies or effectiveness of drought relief?

Mr. KEYS. Senator Johnson, I think the one that we are practicing, even as we speak, is to try to involve Reclamation with other agencies that have resources available to work with drought-challenged areas. Today or tomorrow we will see a press announcement on drought action teams that have been established for the States of Washington and Idaho, trying to bring the work that we can do, the planning that we can make available under title I of this Act, together with some resources from the Department of Agriculture, the FAS, the NRCS and other resources that they have, to bear on problems. In our case, it also lets us try some new technologies—new technologies such as desalination facilities—to get some future planning involved in—one of the things that we found in working with this Act in other areas is the worst time to plan for a drought is when you're in one. And it lets us do some of that forward thinking at times that we can do it, when we're not right under the gun of the drought.

Senator JOHNSON. Your testimony indicated that the original Drought Relief Act included a ceiling of \$90 million in expenditures; can you share with us how close Reclamation is to exceeding that cap? How adequate has that cap been?

Mr. KEYS. Mr. Johnson, over the past 5 years that I've been involved in the budgets from this end, our annual expenditures have been—our annual appropriations have been to the tune of \$2 to \$5 million. The remaining portion of that \$91 million is adequate to carry us the next 5 years.

Senator JOHNSON. Relative to S. 247, which my Oregon colleagues are sponsoring, your testimony mentioned that the Code of Federal Regulations and OMB circulars contained Federal guidelines which specified the types of activities that qualify as in-kind services to satisfy cost-share requirements for water conservation projects. I wonder if you could share with the committee copies of these regulations and circulars for the record?

Mr. KEYS. Mr. Johnson, we would be happy to supply those for the record.

Senator JOHNSON. Very good. Again, Mr. Keys, I'm very appreciative of your working closely with the committee, and also appreciative of your support for S. 819. Thank you.

Mr. KEYS. Sure.

Senator MURKOWSKI. Senator Smith.

Senator SMITH. Thank you, Madam Chairman.

Commissioner Keys, it's good to see you. And I want to join my colleague, Senator Johnson, in acknowledging all of the good work you do all over the West. It is a pleasure to work with you, and I am very grateful for your willingness on so many issues to work with us to find solutions. I'm hoping to find a way to get your support for S. 247. I think it is a fact that in the Deschutes Basin there are ESA-listed species that do affect your project and your work; is that a fair statement?

Mr. KEYS. Senator Smith, that is a fair statement.

Senator SMITH. I understand your concern in terms of the economics and how this is being proposed, but clearly if we could provide the 20 cubic feet per second of water that this project would put back in the Deschutes, I imagine it would be very helpful to your responsibilities to these species in your other projects.

Mr. KEYS. Senator Smith, 20 cubic feet per second on top of the existing 25 to 30 cubic feet per second already there would do wonders in that place.

Senator SMITH. Okay. It does seem that we do have a Federal stake in this. The bill certainly does provide for some real help to the species in dry times of the year. It certainly helps farmers, and certainly advances public safety. I guess all I'm asking is that you'll work with us to find the right financing formula to make this happen, because it does seem to me the Federal stake is very real, the fish and wildlife concerns are very real, and obviously, the irrigation aspects really ought to be achieved. So my hope is that you'll work with us, as you have in the past, and figure out how to make this so it wins the administration's support.

Mr. KEYS. Senator Smith, we will work with you. I certainly will go back to the administration and show them different ways to consider this bill. And then, if the committee and the Senate decided to do that, we would certainly work very closely with you to implement it.

Senator SMITH. It's really just a matter of money, isn't it? Or is it something in the calculation of credits for water that just violates one of the procedures that you have to follow?

Mr. KEYS. Senator Smith, the way the bill sets out the cost share, it doesn't work.

Senator SMITH. Okay.

Mr. KEYS. We would certainly work with you to make that work.

Senator SMITH. Okay.

Mr. KEYS. And then, as you've said, it's a matter of money.

Senator SMITH. It always comes down to that, doesn't it?

Mr. KEYS. Yes, it does.

Senator SMITH. Well, thank you, Mr. Commissioner, for all that you do.

Senator MURKOWSKI. Thank you, Senator Smith.

Commissioner, Dr. Bartels, thank you both for your testimony, again, and for the fine work that you do for the Bureau. And Dr. Bartels, we appreciate you coming all the way from Alaska. You can now go home and take care of things on the home front. Have a nice flight. Again, thank you for your willingness to work with us on some of these issues that are outstanding, and for your help in getting some of these moving forward, we appreciate that a great deal.

With that, let's move to the second panel, please. Good afternoon, gentlemen. I'd also like to welcome you, Commissioner Blatchford—I know that you have also traveled a long way to be with us this afternoon—the Alaska Department of Community and Economic Development. And Mr. McDaniels, I would be remiss in not acknowledging that you, also, have a transcontinental flight, so thank you for being with us, as well, this afternoon.

Commissioner Blatchford, if we can start with your testimony, and then we will proceed to Mr. McDaniels. Welcome.

**STATEMENT OF EDGAR BLATCHFORD, COMMISSIONER,  
ALASKA DEPARTMENT OF COMMUNITY AND ECONOMIC DE-  
VELOPMENT, ANCHORAGE, AK**

Mr. BLATCHFORD. Thank you, Madam Chair, and members of the committee for this opportunity to testify on behalf of the State of Alaska and the Department of Commerce, Community and Economic Development. These legislative proposals are very important to the affected communities and residents of Alaska.

I am testifying before you because our department's Alaska constitutional mandate to assist communities.

Alaska believes a joint Federal-State Floodplain and Erosion Mitigation Commission is long overdue. This legislation recognizes that floodplain management measures and erosion mitigation interrelate, frequently overlap and often rely on a multi-agency approach. We work closer with the Federal, State and Native organizations, and we encourage this working togetherness.

We also believe, Madam Chair and members of the committee, in being multi-objective. I, as Commissioner of the Department of Commerce and Economic Development, cannot assist the communities most at risk. The burden on our State and Federal resources in disaster assistance and emergency response can and should be reduced.

For a few communities, this can not happen without a coordinated Federal-State effort to address the flood and erosion problems. The Department of Commerce, Community and Economic Development is charged with creating a local economic base for most of our villages in rural Alaska. We need to provide jobs, and it is difficult when the land under your feet is washing away during each storm, or the river breaks up, flooding the communities. We need a decisionmaking body that can make recommendations and see direct implementation of flood and erosion mitigation solutions. We need a decisionmaking body to set priorities for those most in need, and to assign agency leads in the State and Federal Governments. Right now, we do not see the Federal or State governments as having direct programs, roles or leadership in addressing erosion.



We have to avoid the problem to begin with. Sometimes we can gather money to try to fix the problem through structural erosion control, but if moving the community is the most cost-effective, socially-acceptable solution, State and Federal Governments do not have clear program authority to assist.

S. 49 includes matters to be studied by the proposed Federal-State Floodplain and Erosion Mitigation Commission. My staff advises me that much study has already been performed, and is readily available from prior Federal and State-funded study projects. Still, Alaska is very appreciative of the study funding support.

However, what is lacking is a coordinated Federal-State, high-level leadership team to make what in some cases will be hard and difficult decisions. Let me make it clear, as I stated before the U.S. Senate Appropriations hearing that Senator Stevens chaired, and you, Senator Murkowski, participated in last summer in Anchorage that started the momentum toward this needed legislation, erosion and flooding is, with many of our communities, having some type of impact. Erosion and flooding are naturally occurring events. Few communities in Alaska are at great risk, and need, in my opinion, to consider the option of moving.

With good information, we hope to avoid placement of expensive infrastructure that can be threatened or needs erosion control, but we need good data. Our Department is working closely with the Corps of Engineers to move forward on the erosion assessments that have been stated as a priority need, and was funded through the Corps in last year's Omnibus Appropriations Bill. We believe these erosion assessments by the Corps, which include using our Department's detailed community maps, will provide excellent information for avoiding siting of new infrastructure in erosion-prone areas.

Let me comment just briefly, Madam Chairman and members of the committee, on Alaska's lack of water resource data, and express my support for S. 1338. In the area of flood forecasting, stream gaging is vital for the data needed to support Alaska's flood map modernization effort. Our Department is the State lead for map modernization and stream gage data is critical for producing updated, accurate flood maps.

Alaska's stream gage density is about one stream for every 4,500 square miles, compared to the rest of the United States which has one stream gage for every 430 square miles. USGS's gaging program, the National Streamflow Information Program, only has 19 percent of the approved gages in place to provide surface water information. We encourage Congress to fund the stream gaging deficit in our State.

Thank you again, Madam Chair and members of the committee, for the opportunity to be here this afternoon. I look forward to any questions that you might have.

[The prepared statement of Mr. Blatchford follows:]

PREPARED STATEMENT OF EDGAR BLATCHFORD, COMMISSIONER, DEPARTMENT OF  
COMMUNITY AND ECONOMIC DEVELOPMENT, ANCHORAGE, AK

Thank you, Madam Chair and members of the Committee for this opportunity to testify on behalf of the State of Alaska and the Department of Commerce, Community and Economic Development on these legislative proposals that are important to the affected communities and residents of Alaska.

I am testifying before you because of our department's Alaska Constitutional mandate to assist communities.

Senate 49, a bill sponsored by the Alaska delegation and supported by the State of Alaska and particularly by our Department will be the primary legislation on which I will comment.

Alaska believes a joint *Federal-State Floodplain and Erosion Mitigation Commission* is long over due.

This Legislation recognizes that *floodplain* management measures and *erosion* mitigation interrelate, frequently overlap and often rely on:

1) A multi-agency approach—Federal-State-Native organizations working together;

2) And must be multi-objective—I can't fulfill my Commerce & Economic Development duties as Commissioner, unless I also assist the Community's most at Risk. The burden on our State and Federal resources in Disaster assistance and Emergency response can and should be reduced. For a few communities (3-4) this can not happen without a coordinated State-Federal effort to address the flood & erosion problems. How do you create an economy, provide jobs when the land under your feet is washing away during each storm, or as River Breakup floods the community?

3) Finally, we need a DECISION-MAKING body that can make Recommendations and see that direct implementation of flood and erosion mitigation solutions, and SET PRIORITIES for those MOST in need, and ASSIGN Agency leads in the State and Federal government. Right now we do not see the Federal, or State Governments as having direct programs, roles or leadership in addressing EROSION. Flooding and floodplain management, Yes—Erosion—we don't have the program authorities needed to:

- AVOID the problem to begin with;
- sometimes we can gather money to try to FIX the problem through Structural Erosion Control, but if
- MOVING is the most cost effective, socially acceptable solution—State and Federal Governments do not have clear program authorities to assist.

Senate 49, includes "Matters to Be Studied" by the proposed *Federal-State Floodplain & Erosion Mitigation Commission*. Staff advises me that much "Study" has been performed and is readily available from prior Federal (primarily the Corps of Engineers) and State funded "Study" Projects. Alaska is very appreciative of the Study funding support. However, what is lacking is a COORDINATED Federal-State high-level leadership team to make, what in some cases, will be hard decisions.

Let me make it clear, as I stated before the U.S. Senate Appropriations Hearing that Senator Stevens chaired and Senator Murkowski, you participated in last summer in Anchorage that started the momentum towards this needed Legislation:

Erosion and flooding is, with many of our communities, having some type of an impact—erosion and flooding are *naturally occurring events*.

A very *few communities* in Alaska are at great risk, and need, in my opinion, to consider the option of moving.

With good information, we hope to avoid placement of expensive infrastructure that can be threatened or that needs erosion control. But we need good data. Our Department is working closely with the Corps of Engineers to move forward on the Erosion Assessments that have been stated as a priority need and was funded through the Corps in last year's Omnibus Appropriations Bill. We believe these Erosion Assessments by the Corps, using our Department's detailed Community Maps, will provide excellent information for avoiding siting of new infrastructure in erosion prone areas.

Let me comment briefly on Alaska's lack of water resource data, and express my support for Senate 1338 "Alaska Water Resources Act of 2005", particularly the bills stated "... particularly in the area of FLOODFORECASTING. Stream gaging is also vital for the data needed to support the Alaska's Flood Map Modernization effort (lead by FEMA nationally). Our Department is the State lead for Map Modernization and stream gage data is critical to producing updated, accurate flood maps.

Alaska's stream gage density is about 1 stream gage for every four-thousand, five hundred square miles, whereas the rest of the U.S. has about 1 stream gage per 430 square miles.

The USGS's gaging program (the National Streamflow Information Program) only has 19% of the approved gages in place to provide surface water information. We encourage Congress to fund the stream gage deficit our State faces.

Thank you again for the opportunity to testify before you this afternoon. I look forward to any questions you may have.

Senator MURKOWSKI. Thank you, Commissioner.  
Mr. McDaniels.

**STATEMENT OF ELMER MCDANIELS, MANAGER,  
TUMALO IRRIGATION DISTRICT, BEND, OR**

Mr. MCDANIELS. Madam Chairman, members of the subcommittee, I'm Elmer McDaniels, and I'm from the Tumalo Irrigation District in Bend, Oregon. The Tumalo Irrigation District, or TID, was founded in 1914 and currently serves about 45 square miles with 8,100 irrigated acres between Bend and Sisters, Oregon, on the east slope of the Cascade Mountains.

I would like to state at the outset our thanks to Senator Smith and Senator Wyden for introducing S. 247, a bill to authorize the Secretary of the Interior to assist the Tumalo Irrigation District in the planning, design and construction of the Water Conservation Project in Deschutes County, the process we have successfully used with the recently dedicated Bend Feed Canal Project.

The project involved the piping of approximately 6 miles of open canals, and returning 20 cfs of conserved water to in-stream flows under the Oregon State Water Conservation Statute, which represents \$5.4 million of public benefit. I'd like to also say that the 30 second feet that has been mentioned before, that Senator Smith mentioned, is not a water right in-stream, it's a gentlemen's agreement between all of the Districts, and could go away at any time with drastic droughts, worse than what we have now. We would put 20 second feet of water in-stream, plus the 5.6 that we've already put in the Bend Feed Canal Project we just finished, and that water right was transferred to the State permanently to be in-stream.

I'd like to submit for the record four letters of support, two from our State's Department of Water Resources, and two from the Department of Fish and Wildlife. Under this bill, the State of Oregon will hold and conserve the in-stream water right resulting from the project. It's not a gentlemen's agreement or something that will go away.

Senator MURKOWSKI. Those letters will be included in the record.  
Mr. MCDANIELS. Thank you.

The benefits of this particular water conservation project are to eliminate water loss, enhance public safety, and conserve energy along the project's 6-mile length. This project will provide significant in-stream flow benefits to both Tumalo Creek and the Deschutes River, a major tributary to the Columbia River, draining much of central Oregon. The Federal and State interest in constructing this project is apparent, pending the need for solutions in the Deschutes Basin for in-stream flow, anadromous fish, and environmental issue. We view that the work that would be undertaken with this project is a partnership model that the Bureau should consider for their own projects, consistent with Water 2025.

The total expected Federal share for this project is \$14 million, and that can be spread over 3 to 5 years, the same as the estimated project planning, design and construction costs. Although TID isn't putting up the traditional cash portion of this project

cost-share, we propose to count the value of the 20 second feet of conserved water generated by the project and transferred back in-stream, a \$5.4 million value, which is explained in our written testimony, which is the equivalent of the traditional local match. That, along with our in-kind service of existing project-related features, constitute a total of \$7.4 million of local match value.

The precedent for this method of water-return cost-share accounting is from Nebraska, where the value of the conserved water and returned water is used as a part of the cost-sharing portion in the Platte River Basin Endangered Species Recovery Implementation Program. I would also like to submit materials for the record on that program's cost-sharing as well.\*

Senator MURKOWSKI. They will be included.

Mr. McDANIELS. We believe this bill offers a district such as ours the opportunity to undertake a project having so many positive benefits in terms of water conservation savings, water enhancement, protection of listed species and reliable water supply to our service area customers during the drought and to increase public safety in our communities.

Thank you for the opportunity to testify on this important legislation to our District. I'd be pleased to try to answer any questions that you have, and I look forward to favorable action by the Subcommittee on Water and Power. Thank you.

[The prepared statement of Mr. McDaniels follows:]

PREPARED STATEMENT OF ELMER McDANIELS, MANAGER,  
TUMALO IRRIGATION DISTRICT, BEND, OR

Madam Chairwoman, Members of the Subcommittee, I am Elmer McDaniels, Manager of the Tumalo Irrigation District in Bend, Oregon. The Tumalo Irrigation District—or TID—was founded in 1914 and currently serves about 45 square miles with 8,100 irrigated acres between Bend and Sisters, Oregon, on the east slope of the Cascade Mountains.

I would like to state at the outset our thanks to Senator Smith and Senator Wyden for introducing *S. 247*—a bill to authorize the Secretary of the Interior to assist in the planning, design, and construction of the Tumalo Irrigation District *Water Conservation Project* in Deschutes County, Oregon—a piece of legislation the District strongly supports. It is vital to us as we undergo the rapid urbanization and growth that is occurring throughout our part of the state during a period of continuing drought. The project involves the piping of approximately six miles of open canals, and returning 20 cfs of conserved water to in-stream flows under the Oregon State Water Conservation Statute, which represents \$5.4 million of public benefit. Under this Bill, the State of Oregon will hold the conserved in-stream water right resulting from the project.

The benefits of this particular water conservation project are to eliminate water loss, enhance public safety, and conserve energy along the project's six-mile length. The completed project, including other work by TID, will deliver pressurized water to TID irrigators during drought years, whereas they now receive an inadequate water supply in 8 out of 10 years. From a watershed enhancement perspective, this project is to provide significant in-stream flow benefits to both Tumalo Creek and the Deschutes River, a major tributary to the Columbia River, draining much of central Oregon. Recently, the Middle Deschutes River has been reduced to seasonal flows as low as 30 cfs, and the goal for this project is to enhance that flow to eventually achieve 250 cfs for the Middle Deschutes basin, a river reach that is significantly productive for trout and anadromous fisheries.

The TID *Water Conservation Project* will provide a 20 cfs water savings to transfer to in-stream, in the Tumalo Creek and the Deschutes River. Together with previous 111) water conservation efforts, this represents 10.4% of the 250 cfs basin goal for restoring the Deschutes River, which will greatly impact stream ecosystem and habitat for listed species as well as provide flow stability for both anadromous fish-

\* Retained in subcommittee files.

eries and residents. The completed project will eliminate or reduce farm pumping systems thereby saving energy, realize pressurization throughout the irrigation system, and reduce the risk of injury and drowning to small children growing up in our District around open canals.

The Tumalo Irrigation District, even though it's a non-Reclamation District, has a history of working with the Bureau on solutions. The Federal and State interest in constructing this project is apparent given the need for solutions in the Deschutes basin for in-stream flow, anadromous fish, and environmental issues; we view the work that would be undertaken with this project as a model that the Bureau should consider for their own projects, consistent with *Water 2025*.

The total expected Federal share for this project is \$14 million, the same as the estimated project planning, design, and construction costs. Although TID isn't putting up the traditional cash portion of this project cost-share, we propose to count the value of the 20 cfs of conserved water generated by the project and transferred back in-stream—a \$5.4 million value—towards our equivalent local match along with our in-kind services. We appreciate the fact there may be some confusion regarding the cost-share requirements. Section 3, Subsection (b), part (2) of *S. 247—Credit Toward Non-Federal Share* states:

“The Secretary shall credit toward the non-Federal share of the Project—  
(B) an amount equal to—

(i) the value of any water converted by the Project to instream water rights, as determined in accordance with State law . . . .”

The precedent for this method of water-return cost-share accounting is from Nebraska, where the value of the conserved and returned water is used as part of that State's cost-sharing portion in the Platte River basin Endangered Species Recovery Implementation Program.

The \$5.4 million dollar value of the water is calculated as follows:

- A single cubic foot per second will irrigate approximately 60 acres.
- The 20 cfs of conserved water is equivalent to the amount of water needed to irrigate 1,200 acres of land in the TID. (20 cfs is equal to approx. 10,000 gallons per minute.)
- The current market price of 1 acre of TID water rights is \$4,500.
- 1,200 acres × \$4,500 = \$5.4 million in value of water

I would also like to submit for the Record three letters: one from the State of Oregon, one from the State's Department of Water Resources, and one from the State's Fish and Wildlife Department.

We believe this Bill offers a District such as ours the opportunity to undertake a project having so many positive benefits; in terms of water conservation savings, watershed enhancement, protection of listed species, for reliable water supply to our service area customers during the drought, and to increase public safety in our communities.

Thank you for the opportunity to testify on this important legislation to our District. I am pleased to answer any questions that you may have, and we look forward to favorable action by the Subcommittee on Water and Power.

Senator MURKOWSKI. Thank you, both of you gentlemen. I appreciate your testimony here this afternoon, and your efforts in getting here.

Commissioner Blatchford, you spoke to the importance of the coordinated effort, and I think this is one of the real advantages that we see with S. 49 is the coordinated Federal-State effort. How important is it—and from the State of Alaska's perspective, how important is it—that we have some kind of a standardized policy to deal with the coastal erosion and the flooding problem statewide?

Mr. BLATCHFORD. Senator Murkowski and Senator Smith, the importance of standardization is growing, because we see a growing problem in Alaska with erosion. It's along the Yukon, the Kuskokwim, and the Bering Sea. And we, the standards would allow, Madam Chair, for us to make the sometimes—I believe will be—difficult and hard decisions on where to place infrastructure, whether it means placing the infrastructure further away from where the community is now located. But a standardized approach

is extremely important, Madam Chair, even though, Madam Chair, each community is very, very unique.

Senator MURKOWSKI. With the mapping that is being undertaken and a recognition that if we can better anticipate what the years of erosion may bring, we can be smarter in our decisions as to where we place the school or the community center.

Do we have any real estimates on the amount of funding that we currently need to address the coastal erosion and the river erosion around the State?

Mr. BLATCHFORD. I have not seen any universal or State-wide estimate of how much it would cost to deal with the problem, the growing problem, but I believe it would be in the hundreds of millions of dollars. Just looking at one community, Madam Chair, and that is the community of Shishmaref, a community that has massive erosion problems caused by the Bering Sea, I've been there several times, starting back in the early 1990's, and it's a community that I'm familiar with because my grandmother was from that area, but we're talking about the cost of moving homes, schools, the National Guard Armory, the entire infrastructure in the community, and it's a growing community. So my approach would be to look for good, solid ground upon which to build a new community, but that would be very, very expensive.

Senator MURKOWSKI. How are we doing in terms of identifying those areas and those communities that are subject to the flooding and erosion?

Mr. BLATCHFORD. Madam Chair, members of the subcommittee, that's easy to do, because the communities contact us whenever the water starts to rise or the banks start to fall in, and then we have to move into a crisis mode to try to move the infrastructure, whether it's the school, or the homes or the washeteria. And this is a recurring problem in some cases. It happens on an annual basis in the spring of the year. For the past couple of decades, we have made, the State of Alaska has made efforts in trying to place the infrastructure on higher ground, in safer locations. But the Yukon and the Kuskokwim River, and all of the tributaries that feed into those massive rivers, they follow their own course, we can't tell them which way to go. We can try to direct them, but the mighty Yukon is the mighty Yukon.

Senator MURKOWSKI. Do you have any suggestions for us here in Congress? And I'm kind of smiling as I'm saying this, just listening to your last comment—we can't tell the River where to go. We can't deal with the forces of Mother Nature, but we can try to anticipate. And sometimes we get lucky, and sometimes we've guessed entirely wrong. From your perspective as a commissioner who goes out, who's in the villages, who's listening to the concerns from the community, what specifically can we do? As Senator Smith mentioned in his previous comments, it always comes down to money, but short of it just coming down to the dollars, what can we do here?

Mr. BLATCHFORD. What can we do? Madam Chair, that's a very good question. The first thing I would suggest is that we not place infrastructure where we know there's going to be an erosion control problem. In one community, they voted to move, but then they were told that they would not have their new school or their new National Guard Armory if they decided to move, the infrastructure

had to be placed on that particular site. I believe, Madam Chair, that it was a lack of coordination within various agencies within the State and Federal Governments. But when we look at Alaska, and how vast the State is, and how powerful nature is in the Northern Hemisphere, we have to appreciate local people's input, and we listen very closely to what local people suggest to us, and we try to take those suggestions and work through the various agencies.

Senator MURKOWSKI. It really does need to be a much better coordinated effort than we've had in the past.

One very quick question on S. 1338, the Water Resources Act, recognizing that you do come from a coastal community, you know how important a plentiful supply of potable water is for the fish, for the seafood processing plants, for tourism, for all of the activity that goes on, whether it's mining, oil and gas development, whatever is happening—do you see water supply issues presenting themselves as a problem for the State in the upcoming years?

Mr. BLATCHFORD. Madam Chair, I spent most of my adult life in the community of Seward, and Seward is a community that has heavy rainfall—

Senator MURKOWSKI. Lots of rain.

Mr. BLATCHFORD. And you have one of the largest ice fields right behind Seward, and numerous glaciers feeding off of the ice field. And still, when the cruise ships come in, the question is, "Do we have enough water to supply the cruise ships, the town, and the city of Seward?" And it is going to be a problem, I believe, particularly out in southwest Alaska, western Alaska, where you have a high water table, and in many cases you have a lack of a water and sewer system, where the honeybucket system is still in use. The question of drinking water will always be there, but I think, Madam Chair, that the problem will become more severe because in many of the areas, particularly native Alaska, you have a growing population. More young people are becoming a larger part of the community. In some cases, Madam Chair, you're looking at 30 to 40 percent of the people in the community are under the age of 16. So I would say the problem of drinking water is going to become more severe.

Senator MURKOWSKI. I appreciate your testimony. I've got one question for Mr. McDaniels, but I think I'm going to defer at this time to Senator Smith.

Senator SMITH. Thank you, Madam Chair. Elmer, it's good to see you again. We certainly appreciate you coming back all this way. I know that flight very well. You're here on a good cause.

I wonder if, for the Senate record, Elmer, you could give the subcommittee a quick summary of the many pressures and competing demands on water in the Deschutes Basin.

Mr. MCDANIELS. Senator, Chair, environmental, fish, safety, irrigation, agriculture, just for starters.

Senator SMITH. How about local demands, city growth?

Mr. MCDANIELS. Local demand for the cities, tremendous growth in Redmond/Bend, Madras is beginning to feel it, Prineville is beginning to feel it, just tremendous demands for a watershed that is just not producing what it needs. We have taken the lead, I feel, in trying to pipe, eliminate seepage loss to help the in-stream, to

help our water users. We've already, as you are well aware, completed one project, this is the second phase.

Senator SMITH. Is it fair to say that the residential demand for water has never been higher, and that Californians are certainly welcome in Oregon, and they're coming there in droves, not just to vacation, but to live permanently?

Mr. MCDANIELS. Well, as an example of what you're asking, when I came to Bend in 1992, July 1992, the population was just under 19,000. Today, it's 62,500.

Senator SMITH. And it's a very arid part of Oregon. We're often thought of as sort of a rainforest, but that's the other side of the mountains.

Mr. MCDANIELS. That's the other side of the mountains.

Senator SMITH. Elmer, if you were to market the water that we propose to conserve, rather than put it back into the stream, do you think you'd have any buyer?

Mr. MCDANIELS. Absolutely. When one water user will buy water from another user, they're paying about \$4,500 an acre, plus the mapping and all of the legal work that goes with it. Now, we are not interested in going in that direction. We're environmentalists, we want a better supply of water for our water users. I like to fish, too. We want water in-stream for fishing, kayaking, you name it.

Senator SMITH. And there's an abundance of all of those activities going on there. It is certainly a recreational capital of the Northwest now, it seems.

Mr. MCDANIELS. It seems to be, yes, sir.

Senator SMITH. Well, Elmer, as I said to Commissioner Keys, we will continue working on S. 247 to get it in the kind of shape that can ultimately—I think we can pass it now, but ultimately we've got to pass it with the administration, too, so we will work with you as well, if you've got ideas for how to do that. It's very, very important that we accomplish this, and the sooner the better.

Mr. MCDANIELS. Madam Chair, Senator Smith, we would be glad to work with you and the subcommittee and Reclamation to fix this up so we can get it passed.

Senator SMITH. Thank you very much, great to see you.

Mr. MCDANIELS. Thank you.

Senator MURKOWSKI. Thank you, Senator Smith.

Mr. McDaniels, I asked Commissioner Keys a question along the same lines in terms of the crediting issue. I asked whether or not the administration, the Bureau would change their position on supporting this legislation, if the project were to be altered so that the cost-share amounts were amended to reflect credit for the actual cost of the in-kind services, and he didn't commit one way or another. Do you think that this legislation—that the water district could go forward with a proposed project, if it were to reflect credit for the actual costs?

Mr. MCDANIELS. We would work with you and the subcommittee and Mr. Keys to do what we can to get this bill approved. I would like to qualify that answer by—the third phase of this project will be done strictly by Tumalo Irrigation District to pipe another 60 miles of what I call a distribution system, the smaller naturals, from 48" diameter down to 6" diameter. And that is going to cost us about \$14 million.



Senator MURKOWSKI. Fourteen?

Mr. McDANIELS. Million dollars.

Senator MURKOWSKI. Well, I think we've heard very clearly here that there is an effort to work on this issue. Working with you, Senator Smith, it sounds like the commissioner is clearly willing to do that. And then the subcommittee will be working with you on that, too, to see what we can do to assist.

Both gentlemen, I appreciate your time, your effort in getting here, and the testimony that you have provided the subcommittee this afternoon.

We'll be working on these issues. I appreciate it. And we are concluded.

[Whereupon, at 4:20 p.m., the hearing was adjourned.]



## APPENDIXES

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### APPENDIX I

#### Responses to Additional Questions

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TUMALO IRRIGATION DISTRICT,  
*Bend, OR, July 21, 2005.*

Hon. LISA MURKOWSKI,  
*Chairman, Subcommittee on Water and Power, Committee on Energy and Natural Resources, U.S. Senate, Washington, DC.*

DEAR SENATOR MURKOWSKI Thank you for the opportunity to testify before your Subcommittee on Water and Power of the Committee on Energy and Natural Resources on July 12, 2005, regarding S. 247, to authorize the Secretary of the Interior to assist in the planning, design, and construction of the Tumalo Irrigation District Water Conservation Project in Deschutes County, Oregon.

The following is the question that has been submitted for the record, and the response to be submitted for the record:

*Question.* You point to the Platte River Basin Endangered Species Recovery Implementation Program as a “precedent” for S. 247’s water-return cost-share component. However, wasn’t that part of a negotiated settlement for the Platte River? How do you respond to Commissioner Keys’ assertion that the two are distinguishable?

*Answer.* We agree with Commissioner Keys that each is distinguishable—one was put together in a regulatory setting (Platte River), and one is put together in a legislative setting (Tumalo). That is not the basis for the “precedent”. The basis is that each recognizes that an amount of water has a dollar value. And, as such, each example uses that as a basis for “cost-sharing” in a non-traditional way. The principle has already been accepted in a governmental setting with the same agency involved (Bureau of Reclamation). We don’t see that it makes a difference whether it is regulatory or legislative.

We also don’t see the significance behind the word “negotiated”. We have put forth in our testimony the “how-we-arrived-at” justification behind the value that we ascribe to our 20 cfs of water for purposes of cost-sharing. We are more than willing to sit down with the Bureau of Reclamation at their area office here in Oregon to discuss these figures if that would be useful in moving the legislation forward in Washington, DC.

Sincerely,

ELMER G. MCDANIELS,  
*District Manager/Secretary to the Board.*

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DEPARTMENT OF THE INTERIOR  
OFFICE OF CONGRESSIONAL AND LEGISLATIVE AFFAIRS,  
*Washington, DC, August 4, 2005.*

Hon. LISA MURKOWSKI,  
*Chairman, Subcommittee on Water and Power, Committee on Energy and Natural Resources, U.S. Senate, Washington, DC.*

DEAR CHAIRMAN MURKOWSKI: Enclosed are responses prepared by the U.S. Geological Survey to questions submitted following the July 12, 2005, hearing on S. 49 and S. 1338.

Thank you for the opportunity to provide this material for the record.

Sincerely,

JANE M. LYDER,  
*Legislative Counsel.*

[Enclosure.]

RESPONSES OF DR. LESLIE HOLLAND-BARTELS TO QUESTIONS  
FROM SENATOR MURKOWSKI

*S. 49, the Alaskan Floodplain and Erosion Mitigation Commission Act of 2005*

*Question 1.* Does the Department agree that some type of commission is needed to better coordinate the development of policy on what the federal government should be doing to combat coastal erosion and flooding in rural Alaska?

Answer. The development of Federal policy is the responsibility of the Federal government. However, this process should not occur in a vacuum. Accordingly, we support coordination with and input from the State and from local interests and believe that sound policy would result from such coordination without the need to establish a commission.

It is important also to keep in mind that coastal erosion and flooding occur naturally; they are of concern primarily where we have developed our coastal and flood plains. The objective is not to combat these natural forces. Instead, it is to evaluate their impacts, identify potential solutions, and determine which options, if any, may be appropriate to pursue.

*S. 1338, Alaska Water Resources Act of 2005*

*Question 2.* My understanding is that the Interior Department has often conducted water resource studies, including the quantity of water available from aquifers. In Alaska, there is very little information available on the size and recharge capabilities of Alaska aquifers used for potable water by many of the residents in the Mat-Su Valley and on the Kenai Peninsula. If this bill is enacted, what will the Department do to identify such aquifers?

Answer. If the bill is or is not enacted, the Department and the U.S. Geological Survey will continue to work with its partners to identify priorities in Alaska for study.

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[Responses to the following questions were not received at the time this hearing went to press.]

QUESTIONS FOR JOHN W. KEYS, III, FROM SENATOR MURKOWSKI

QUESTIONS ON S. 247, THE TUMALO WATER CONSERVATION PROJECT ACT OF 2005

*Question 1.* What is the difference between the method of crediting and accounting for water proposed for the TID water conservation project in Deschutes County, Oregon, and the Platte River Basin Endangered Species Recovery Implementation Program?

*Question 2.* This sounds like a Water 2025 project. Why doesn't the Administration support it?

QUESTIONS ON S. 819, THE PACTOLA RESERVOIR REALLOCATION  
AUTHORIZATION ACT OF 2005

*Question 3.* If this legislation is enacted, will Reclamation be able to execute the new contracts immediately?

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QUESTION FOR EDGAR BLATCHFORD FROM SENATOR MURKOWSKI

QUESTION ON S. 1338, THE ALASKA WATER RESOURCES ACT OF 2005

*Question 1.* As Commissioner of Economic Development in Alaska, you know how important a plentiful, affordable supply of potable water is to further economic development. How important is it for Alaska's economy to get more information on its current and future water supply sources?

## QUESTIONS FOR JOHN W. KEYS, III, FROM SENATOR BINGAMAN

*Question 1.* S. 648 (Smith)—Reclamation's budget request for funding to support its drought relief program has not been significant in recent times. This is surprising given the drought conditions that have affected large parts of the West. For 2005 and 2006, the President requested only \$500,000. In the drought-plagued years of 2003 and 2004, only \$899,000 and \$1.12 million were requested, respectively.

- What is Reclamation's approach for addressing drought conditions—is additional funding needed to support that approach?
- Rather than merely extending the authority for the existing Drought Relief Act—should a different approach be taken or new authority developed?
- How much has the Bureau of Reclamation expended under the Drought Relief Act program since its enactment?

## QUESTIONS FOR JOHN W. KEYS, III, FROM SENATOR WYDEN

*Question 1.* Isn't one of the missions of the Bureau to encourage partnerships with local governments to meet water supply needs?

*Question 2.* Increasing flows in Tumalo Creek will make the stream and the Deschutes River a better place for fish to live by giving them more water and by cooling water temperatures. Aren't such environmental benefits important missions of the Bureau?

*Question 3.* You state in your testimony that you do not support this legislation because, based on your calculations, the non-Federal cost share is not 50%. Basically, the Bureau doesn't think that the water-return cost-share should be credited to the State. Mr. McDaniels states in this testimony that a Nebraska project has gotten credit for water-return cost-share. So why then is it okay for Nebraska to get credit for water-return but not for Oregon?

*Question 4.* If the local sponsors met the 50% requirement, would you support this legislation?



APPENDIX II  
Additional Material Submitted for the Record

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STATE OF OREGON,  
WATER RESOURCES DEPARTMENT,  
*Salem, OR, April 26, 2005.*

ELMER MCDANIELS,  
*Manager, Tumalo Irrigation District, Bend, OR.*

DEAR ELMER: As you know the Water Resources Department has long supported the Tumalo Feed Canal Project, and that support continues. Tumalo Irrigation District has been a leader in water conservation, as guided by your selection to receive the 2002 Oregon Water Resource Commission's Water Conservation and Restoration award, and the 2003 Governor's Oregon Plan Certificate of Appreciation.

The Tumalo Feed Canal Project will continue this tradition of excellence in water resource management. The piping of the canal will eliminate seepage loss and provide for a more reliable delivery of water to TID patrons. The project also has the potential to significantly improve streamflows in Tumalo Creek and the middle Deschutes River. We look forward to receiving your application for allocation and use of conserved water.

If you have any questions, or if the Department can be of further assistance, please contact Kyle Gonnar, SC Region Manager, at 541-388-6669.

Sincerely,

PHIL WARD,  
*Director.*

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STATE OF OREGON,  
DEPARTMENT OF FISH AND WILDLIFE,  
*Salem, OR, June 22, 2005.*

ELMER MCDANIELS,  
*Manager, Tumalo Irrigation District, Bend, OR.*

Re: Tumalo Feed Canal Piping Project

DEAR ELMER: I am writing to express ODFW support for the proposed Tumalo Feed Canal piping project. The Oregon Department of Fish and Wildlife (ODFW) understands the project will result in piping of approximately 6 miles of open canal with 100% of the conserved water transferred in-stream at an estimated rate of 20 cubic feet per second.

Stream flows restored through this project will enhance redband trout (an Oregon Sensitive species), brown trout, and mountain whitefish populations and other aquatic resources in Tumalo Creek from the point of diversion downstream to the confluence of the Deschutes River and in the Deschutes River downstream to Lake Billy Chinook. Benefits to fish populations will accrue through improvements in water quality and quantity resulting in enhanced feeding, resting, and rearing habitats and improved access to spawning areas in Tumalo Creek. This project will also compliment other in-stream flow enhancement projects implemented by the Tumalo Irrigation District and other basin interests.

The combined effect of project benefits to Tumalo Irrigation District operations and aquatic resources make this a true win-win project. ODFW greatly appreciates the efforts of the Tumalo Irrigation District to restore important aquatic habitats and resource values for present and future generations of Oregonians.

Sincerely,

STEVEN MARX,  
*Acting Deputy Director.*

STATE OF OREGON,  
DEPARTMENT OF FISH AND WILDLIFE,  
Salem, OR, July 1, 2005.

CARL W. HOPP, JR.,  
Attorney at Law, LLC, Bend OR.

Re: Basis for Oregon Method Flow Recommendations

DEAR MR. HOPP: I am writing you at the request of Steve Marx to answer your inquiry about what the key elements of the Oregon Method are and how those are used to establish instream water rights.

The Oregon Method is one of the methodologies identified in Oregon Administrative Rule (OAR 635-400-0015) to be used by the Oregon Department of Fish and Wildlife (ODFW) to request instream water rights. The rules require that ODFW consider the "habitat requirements for conservation, maintenance or enhancement of fish and wildlife migration, spawning, nesting brooding, egg incubation, larval or juvenile development, juvenile and adult rearing and aquatic life" when developing an instream flow requirement.

The Oregon Method is a habitat based model for determining flow requirements for salmonid fish and is specific to anadromous and resident salmonids only. The method was developed specifically for this purpose and is described in the "Oregon Department of Fish and Wildlife Guidelines for Instream Flow Methodologies (1989)". The method computes the percent of cross-sections or area usable for fish life history functions. Life histories addressed by the method are: Passage, Spawning & Incubation and Rearing.

Stream flow levels are determined by species and life functions present during different periods of the year. The method requires field measurements and observations at different locations in the stream (transects) and at different flows. Measurements include water depth and velocity at many locations along transects across the stream, observations of the stream (wetted area), proximity to cover, relative proportion of pools and riffles, and spot measurements of depth and velocity.

Once the field measurements are completed the data is analyzed by comparing it to standard criteria and determining the amount of stream width meeting the criteria; calculating the average conditions for each species and life function and plotting average stream conditions that meet all or a majority of the criteria. You then chart the periods of the year when each species and life function is present and select the highest of the flows needed by the individual species and life functions present during each period of the year (called optimization).

ODFW then uses this information to apply for an instream water right for a reach of stream. ODFW is required to provide to the Water Resource Department (WRD) an application containing:

- Name and extent of the stream or lake.
- Species and life stage of fish or wildlife resources.
- Statement of the purpose for which the water is requested.
- *Amount of flow requested, by month.*
- *Description of the technical data and methods used.*
- Evidence of notification of DEQ and Parks and affected local governments.
- Statement that the amount requested is the minimum amount necessary.

If the requested amount of flow is greater than the Expected Natural Average Flow (ENAF) (the amount of flow expected to naturally be in the stream half of the time) then WRD limits the requested instream water right to ENAF. In the case of the Mid Deschutes, below Bend, the instream water right is well below ENAF.

WRD then goes through a public review process before granting the instream water right. Once the water right granted and certificated it is held in trust by WRD for the people of Oregon.

I hope this addresses your questions on how the Oregon Method is used to establish instream water rights. If you have questions or need additional clarification please give me a call at 503-947-6084.

Sincerely,

RICK KEPLER,  
Manager, Water Quality/Quantity.



STATE OF OREGON,  
WATER RESOURCES DEPARTMENT,  
*Salem, OR, July 7, 2005.*

ELMER MCDANIELS,  
*Manager/Secretary, Tumalo Irrigation District, Bend, OR.*

DEAR ELMER: I am pleased to respond to your request for a letter that describes Oregon's allocation of conserved water statute (ORS 537.455—537.500).

The Allocation of Conserved Water Program allows a water user who conserves water to use a portion of the conserved water on additional lands, lease or sell the water, or dedicate the water to instream use. Use of this program is voluntary and provides benefits to both water right holders and instream values.

The statutes authorizing the program were originally passed by the Legislative Assembly in 1987. The primary intent of the law is to promote the efficient use of water to satisfy current and future needs—both out-of-stream and instream. The statute defines conservation as “the reduction of the amount of water diverted to satisfy an existing beneficial use achieved either by improving the technology or method for diverting, transporting, applying or recovering the water or by implementing other approved conservation measures.”

In the absence of Department approval of an allocation of conserved water, water users who make the necessary investments to improve their water use efficiency are not allowed to use the conserved water to meet new needs; instead any unused water remains in the stream where it is available for the next appropriator. In exchange for granting the user the right to use a portion of the conserved water, the law requires allocation of a portion to the state for instream use.

After mitigating the effects on any other water rights, the Water Resources Commission allocates 25 percent of the conserved water to the state (for an instream water right held by the State of Oregon) and 75 percent to the applicant, unless the applicant proposes a higher allocation to the state or more than 25 percent of the project costs come from federal or state non-reimbursable sources. A new water right certificate is issued with the original priority date reflecting the reduced quantity of water being used with the improved technology. Other certificates are issued for the applicant's portion of the conserved water and for the state's instream water right. The priority dates for these certificates are either the same as the original right, or one minute junior.

If you need additional information or if I can be of further assistance, please contact me at (503) 986-0885. Many thanks for your continued interest in this program.

Sincerely,

BOB RICE,  
*Field Services Division.*

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PREPARED STATEMENT OF ANITA WINKLER, EXECUTIVE DIRECTOR,  
OREGON WATER RESOURCES CONGRESS

RE: S. 648—DROUGHT RELIEF

As Executive Director for the Oregon Water Resources Congress (OWRC), I appreciate this opportunity to support your efforts to extend the drought relief provisions included in the Reclamation States Emergency Drought Relief Act of 1991 by introducing S. 648.

The OWRC represents organized agricultural interests in the State of Oregon. Its members include irrigation districts, water control districts, drainage districts, ports, cities, individual farmers, and agribusiness associates. With our broad base of representation around the State, OWRC has the experience and expertise to comment on this issue.

The original Emergency Drought Relief Act was enacted in 1991, when the effects of drought, occurring at the end of a fairly long stretch of above-normal water years, were very significant. The authority provided by this Act has been utilized by many Western water users, including irrigators in Oregon, as a basis for federal assistance in the past decade.

S. 648 would allow Oregon water users to receive drought assistance, including loans for nonstructural and minor structural activities for the prevention or mitigation of the adverse effects of drought. The bill would extend the ability of the Secretary of Interior (Secretary) to purchase water made available by Federal Reclamation project contractors through conservation or other means with respect to which the seller has reduced the consumption of water. The bill would also allow the continued use of facilities at federal Reclamation projects for the storage or conveyance

of project or non-project water, for use both within and outside an authorized project service area.

We are encouraged that Congress recognizes that regional drought disasters in the Western United States cause serious economic and environmental losses. As Oregon and other Western states face yet another year of sustained drought conditions, we support Senator Smith's effort to employ S. 648 as a vehicle to extend this authority for another five years.

Thank you for this opportunity to comment.

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PREPARED STATEMENT OF CHARLES NYLANDER, CHAIRMAN OF THE LEGISLATIVE AND BUDGET COMMITTEE FOR THE WESTERN COALITION OF ARID STATES (WESTCAS), ON S. 648

The Western Coalition of Arid States (WESTCAS) is submitting this testimony to the United States Senate Committee on Energy and Natural Resources, Subcommittee on Water and Power regarding S. 648; introduced by Mr. Smith of Oregon to amend the Reclamation States Emergency Drought Relief Act of 1991, to extend the authority for drought assistance. My name is Charlie Nylander and I represent the interests of WESTCAS and serve as Chairman of the Legislative/Budget Committee.

Drought assistance is of particular concern for our member's states, 6 out of 7 of which are currently experiencing drought conditions, spanning 'abnormally dry' to 'extreme drought' on the U.S. Drought Monitor scale maintained by the University of Nebraska. Direct affects of such conditions include above average fire risks, water restrictions resulting from widespread water shortages, crop losses and pasture damage.

WESTCAS is a coalition of approximately 125 water and wastewater districts, cities and towns, and professional associations focused on water quality and water quantity issues in the States of Arizona, California, Colorado, Idaho, Nevada, New Mexico, Oregon and Texas. Our mission is to work with Federal, State and Regional water quality and quantity agencies to promote scientifically-sound laws, regulations, appropriations, and policies that protect public health and the environment in the arid West.

The Bureau, of course, is a major architect for water storage and research related to new water technologies that provide enormous benefit to the economies and livelihoods of a water-dependent West. WESTCAS urges granting an extension to Federal agencies, namely the Bureau of Reclamation, which has existing authority to respond to drought conditions. Authorized by the 'Reclamation States Emergency Drought Relief Act of 1991', the Bureau of Reclamation is well suited to, and has been effectively providing vital services to drought afflicted communities for the past 14 years. Some of the benefits include drought and water quality research and mitigation measures. Our organization supports granting this extension to the Bureau of Reclamation while Congress works on a National Drought Policy.

Extending the authority of the Bureau is of importance to all 17 of the Reclamation States which, despite having a wet winter, are now facing a sixth year of widespread drought conditions. However, Reclamation States are not by any means the only ones in the United States currently afflicted by drought. Drought monitoring maps currently show 19 additional states in various stages of drought conditions. Along with passing this amendment to the Reclamation States Emergency Drought Relief Act of 1991, Congress must also recognize that there

currently exists no permanent overarching federally-coordinated plan for drought preparedness and response. As drought is an ongoing problem affecting more people in the United States than any other natural hazard, Congress must also take the next step in drought policy and implement the recommendations of the National Drought Policy Council. By following these recommendations and taking a proactive approach the country will be poised to reduce the amount of damage caused by future droughts.

We thank you for the opportunity to provide this statement for the hearing record.